

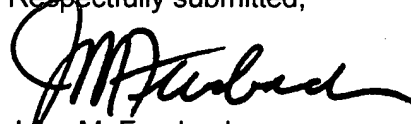
REMARKS

The Specification has been amended so that the descriptive matter in the section entitled "BRIEF SUMMARY OF THE INVENTION" is in harmony with the claims as amended (MPEP 1302.01).

Claim 24 in the Examiner's Amendment has been amended to correct a typographical error and to insert a phrase which was inadvertently omitted.

Applicants request a timely supplemental Notice of Allowability and a Notice of Allowance for Claims 13-15, 19-21, 24, and 26.

Respectfully submitted,



John M. Fernbacher  
Agent for Applicants  
Registration No. 32,895  
7201 Hamilton Boulevard  
Allentown, PA 18195-1501

(610) 481-6560

**ATTACHMENT TO RESPONSE TO FINAL OFFICE ACTION**  
**for Serial No. 09/416,042**

**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

**In the Specification:**

The entire section entitled "BRIEF SUMMARY OF THE INVENTION" has been canceled and replaced with the new text submitted above.

**In the Claims:**

24. (Amended) A method for the liquefaction of a feed gas which comprises providing at least a portion of the total refrigeration required to cool and condense the feed gas by utilizing

(a) a first refrigeration system comprising at least one recirculating refrigeration circuit, wherein the first refrigeration system utilizes two or more refrigerant components and provides refrigeration in a first temperature range; and

(b) a second refrigeration system which provides refrigeration in a second temperature range by work expanding a pressurized gaseous refrigerant stream;

wherein the first refrigerant system [stream] is operated by

- (1) compressing a first gaseous refrigerant;
- (2) cooling and partially condensing the resulting compressed refrigerant to yield a vapor refrigerant fraction and a liquid refrigerant fraction;
- (3) further cooling and reducing the pressure of the liquid refrigerant fraction, and vaporizing the resulting liquid refrigerant fraction to provide refrigeration in the first temperature range and yield a first vaporized refrigerant;
- (4) cooling and condensing the vapor refrigerant fraction, reducing the pressure of at least a portion of the resulting liquid, and vaporizing the resulting liquid refrigerant

fraction to provide additional refrigeration in the first temperature range and yield a second vaporized refrigerant; and

(5) combining the first and second vaporized refrigerants to provide the first gaseous refrigerant of (1);

wherein vaporization of the resulting liquid in (4) is effected at a pressure lower than the vaporization of the resulting liquid refrigerant fraction in (3), and wherein the second vaporized refrigerant is compressed before combining with the first vaporized refrigerant.